

App. No. 09/670,073
Amendment Dated April 28, 2006
Reply to Office Action of February 1, 2006

Listing of claims:

1. (Currently amended) A computer-readable medium having computer-executable instructions comprising:
 - assigning a value to a unique identifier that is used to identify a version of software associated with an executable, wherein:
 - the value is associated with a feature of update information that is used to update the corresponding version of the software, and
 - the feature comprises at least one of: the location of the update information, a method for locating the update information, a time stamp associated with the update information, the size of the update information, a signature associated with the update information, and the age of the update information;
 - extracting metadata from the executable, wherein the metadata includes the unique identifier;
 - generating a request to obtain location information of the update information using the unique identifier, wherein the request is generated by packaging the extracted metadata;
 - querying a first server for the location information using the request, wherein:
 - the location information includes a redirect to information about a location of a second server that comprises the update information,
 - the redirect includes the unique identifier, and
 - the location information identifies the second server type;
 - linking the first server to the second server;
 - querying the second server for the update information using the redirect, wherein the redirect is associated with a protocol supported by ~~associated with~~ the second server type identified in the location information;
 - receiving the update information from the second server; and
 - updating the version of the software identified by the unique identifier based on the update information.

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2. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises providing a path to a look up HyperText Transfer Protocol (HTTP) symbol location server.

3. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises querying a Dynamic Host Configuration Protocol (DHCP) server and requesting Uniform Resource Identifiers (URIs) to query the second server for the update information.

4. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises querying a Domain Name System (DNS) server for a service (SRV) record identifying the second server to be queried.

5. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises querying a directory service for the location information.

6. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises querying an Application Configuration Access Protocol (ACAP) server for the location information.

7. (Previously presented) The computer-readable medium of claim 1, wherein querying a first server further comprises querying a Lightweight Directory Access Protocol (LDAP) server for the location information.

Claims 8-12 (Cancelled)

13. (Currently amended) A computer-readable medium having computer-executable instructions comprising:

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assigning a value to a unique identifier that is used to identify a version of software associated with an executable, wherein:

the value is associated with a feature of update information that is used to update the corresponding version of the software, and

the feature comprises at least one of: the location of the update information, a method for locating the update information, a time stamp associated with the update information, the size of the update information, a signature associated with the update information, and the age of the update information;

extracting metadata from the executable, wherein the metadata includes the unique identifier;

generating a request ~~using the unique identifier~~ to obtain from a first server location information associated with a second server, wherein:

the request is generated by packaging the extracted metadata,

the second server comprises the update information,

the location information includes a redirect to a location of the second

server,

the redirect includes the unique identifier, and

the location information identifies the second server type;

creating a path to the second server;

querying the second server ~~through the path for the location information~~ using the redirect, wherein the redirect is associated with request using a protocol supported by associated with the second server type identified in the location information;

receiving the update information from the second server through the path; and

updating the version of the software identified by the unique identifier based on the update information.

14. (Previously presented) The computer-readable medium of claim 13, wherein receiving the update information further comprises receiving a reference location associated with the second server to access a file associated with the executable on the second server.

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15. (Previously presented) The computer-readable medium of claim 13, wherein querying the second server further comprises querying a server selected from a group consisting of a DHCP server, a DNS server, an ACAP server, and a LDAP server.

16. (Previously presented) The computer-readable medium of claim 15, wherein querying the second server further comprises querying a set of servers in parallel.

17. (Previously presented) The computer-readable medium of claim 15, wherein querying the second server further comprises querying a set of servers in a serial order.

18. (Previously presented) The computer-readable medium of claim 13, wherein querying the second server further comprises packaging information extracted from the executable into a request and sending the request to the second server.

Claims 19-21 Cancelled)

22. (Currently amended) The computer-readable medium of claim 1 ~~21~~, wherein the metadata comprises metadata for debug files.

23. (Currently amended) The computer-readable medium of claim 1 ~~21~~, wherein the metadata comprises metadata for source files.

24. (Currently amended) The computer-readable medium of claim 1 ~~19~~, wherein querying the second server further comprises querying the second server for symbols associated with the executable.

25. (Currently amended) The computer-readable medium of claim 1 ~~19~~, wherein querying the second server further comprises querying the second server for regression analysis data associated with the executable.

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26. (Currently amended) The computer-readable medium of claim 1 19, wherein querying the second server further comprises querying the second server for performance analysis data associated with the executable.

27. (Currently amended) The computer-readable medium of claim 1 19, wherein querying the second server further comprises querying the second server for source code associated with the executable.

28. (Currently amended) The computer-readable medium of claim 1 19, wherein ~~querying the second server further comprises~~ receiving files comprising the update information further comprises receiving files comprising the update information.

29. (Cancelled)

30. (Currently amended) The computer-readable medium of claim 1 29, wherein ~~generating the request packaging metadata~~ further comprises packaging the extracted metadata to locate an updated version of the executable file.

31. (Currently amended) The computer-readable medium of claim 1 29, wherein ~~generating the request packaging metadata~~ further comprises packaging the extracted metadata for locating a debug file associated with the executable file.

32. (Currently amended) The computer-readable medium of claim 1 29, wherein ~~generating the request packaging metadata~~ further comprises packaging the extracted metadata to locate a specific build version of the executable file.

Claims 33 and 34 (Cancelled)

35. (Currently amended) The computer-readable medium of claim 1 34, wherein querying the second server further comprises providing a qualifier.

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36. (Currently amended) A computerized system comprising:
a first server comprising location information for update information that is used to update a corresponding version of software associated with a local file, wherein:
the version of the software is identified by a unique identifier that has an assigned value associated with a feature of the update information,
the feature comprises at least one of: the location of the update information, a method for locating the update information, a time stamp associated with the update information, the size of the update information, a signature associated with the update information, and the age of the update information,
the first server extracts metadata from the local file
the metadata includes the unique identifier,
the first server generates a request by packaging the extracted metadata,
and
the location information identifies the type of server that comprises the update information;
a second server comprising the update information, wherein:
the first server is linked to the second server through a redirect path that is included in the location information ~~created based on the value,~~
the first server queries the second server through the redirect path for the update information, wherein the redirect is associated with using a protocol supported by ~~associated with~~ the second server type identified in the location information, and
the first server receives the update information from the second server through the path; and
a computer comprising the local file, wherein the first server provides the update information to the computer such that the version of the software identified by the unique identifier is updated based on the update information.

37. (Previously presented) The system of claim 36, wherein the update information comprises debug information.

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38. (Previously presented) The system of claim 36, wherein the update information comprises solution access information.

39. (Previously presented) The system of claim 36, wherein the computer reads the update information from the second server.

40. (Previously presented) The system of claim 36, wherein the first server comprises a HyperText Transfer Protocol (HTTP) server.

41. (Previously presented) The system of claim 40, wherein the HTTP server comprises a Dynamic Host Configuration Protocol (DHCP) server having Uniform Resource Identifiers (URIs) for querying the second server.

42. (Previously presented) The system of claim 40, wherein the HTTP server comprises a Domain Name System (DNS) server having a service (SRV) record for identifying the second server.

43. (Previously presented) The system of claim 40, wherein the HTTP server comprises a directory service for providing the location information for the update information to the computer.

44. (Previously presented) The system of claim 36, wherein the first server comprises an Application Configuration Access Protocol (ACAP) server.

45. (Previously presented) The system of claim 36, wherein the first server comprises a Lightweight Directory Access Protocol (LDAP) server.

46. (Previously presented) The system of claim 36, wherein the computer is networked to the first and the second servers over the Internet.

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Claims 47 and 48 (Cancelled)

49. (Previously presented) The system of claim 47, wherein the computer is configured to query a hierarchy of first servers in serial order.

50. (Currently amended) The system of claim 36 47, wherein the computer is configured to query a hierarchy of first servers in parallel.

51. (Currently amended) The system of claim 36 47, wherein the update information comprises solution access information.

52. (Currently amended) The system of claim 36 47, wherein the computer is configured to query the second server, in an HTTP request format, for the update information using a qualifier associated with the local ~~executable~~ file.

53. (Cancelled)

54. (Currently amended) The system of claim 36 53, wherein the metadata ~~extracted from the executable file~~ comprises metadata for a debug file associated with the local ~~executable~~ file.

55. (Currently amended) The system of claim 36 53, wherein the metadata ~~extracted from the executable file~~ comprises metadata associated with regression analysis data for the local ~~executable~~ file.

56. (Cancelled)

57. (Currently amended) The computer-readable medium of claim 1 56, ~~wherein using the lookup server further comprising~~ comprising ~~comprises~~ providing a response to a requesting client from the first ~~lookup~~ server, wherein the response comprises the redirect.

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58. (Cancelled)

59. (Currently amended) A method for updating software associated with a local file, comprising:

assigning a value to a unique identifier that is used to identify a version of software associated with the local file, wherein:

the value is associated with a feature of update information that is used to update the corresponding version of the software, and

the feature comprises at least one of: the location of the update information, a method for locating the update information, a time stamp associated with the update information, the size of the update information, a signature associated with the update information, and the age of the update information;

extracting metadata from the local file, wherein the metadata includes the unique identifier;

packaging the extracted metadata ~~extracted from the local file~~ into a request to obtain the update information, wherein the metadata is associated with the unique identifier;

sending the request to a locator server;

receiving location information from the locator server, wherein:

the location information includes a redirect to a location of a second server that comprises the update information,

the redirect includes the unique identifier, and

the location information identifies the second server type of server that ~~comprises the update information;~~

packaging a query for retrieving the update information based on the redirect ~~location information~~, wherein the query corresponds to a protocol supported by ~~associated with~~ the second server type of server identified in the location information; and

updating the version of the software identified by the unique identifier based on the update information.

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60. (Previously presented) The method of claim 59, wherein packaging the query further comprises qualifying the query to select a specific file version from the update information.

61. (Previously presented) The method of claim 60, wherein qualifying the query further comprises qualifying the query to select an updated file version associated with the local file.

62. (Previously presented) The method of claim 60, wherein qualifying the query further comprises qualifying the query to select a specific debug file associated with the local file.

63. (Currently amended) A server architecture comprising;
a first server comprising location information for update information that is used to update a corresponding version of software associated with an executable file, wherein:
the version of the software is identified by a unique identifier that has an assigned value associated with a feature of the update information,
the feature comprises at least one of: the location of the update information, a method for locating the update information, a time stamp associated with the update information, the size of the update information, a signature associated with the update information, and the age of the update information,
the first server extracts metadata from the local file
the metadata includes the unique identifier,
the first server generates a request by packaging the extracted metadata,
and
the location information identifies the type of server that comprises the update information;
a second server linked to the first server based on the request value, wherein the second server comprises the update information associated with the executable file;

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means for interpreting the metadata associated with the unique identifier received by the first server from a remote client;

means for generating a query for retrieving the update information using a redirect identified in the location information, wherein:

the redirect includes the unique identifier, and

the redirect is associated with a protocol supported by ~~associated with~~ the second server type identified in the location information;

means for redirecting the remote client to the second server using the redirect, wherein the second server is adapted to interpret the query from the remote client; and

means for updating the version of the software identified by the unique identifier based on the update information.